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## Spring butterflies on the Island of Kós (Greece) (Lepidoptera : Hesperioida & Papilionoidea)

by

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**Samenvatting.** Na een korte inleiding en een beknopte historiek van het gedane lepidopterologisch onderzoek op het Griekse eiland Kós behandelt de auteur zijn persoonlijke waarnemingen gedaan op 10 en 11 april 1986. Hierbij worden 8 nieuwe soorten voor het eiland vermeld. Een discussie over bepaalde soorten welke nog niet gevonden werden, maar waarschijnlijk ook tot de fauna van het eiland behoren, alsook een lijst van de 38 tot op heden van het eiland Kós bekende soorten besluit het artikel.

**Résumé.** Après une courte introduction ainsi qu'une esquisse de l'histoire de la recherche lépidoptérologique effectuée dans l'île de Kós, l'auteur nous entretient de ses propres observations faites les 10 et 11 avril 1986. Ainsi, 8 nouvelles espèces pour la faune de l'île de Kós sont mentionnées. Une discussion à propos de quelques espèces non encore observées mais appartenant très probablement à la faune de l'île et une liste des 38 espèces actuellement connues de l'île de Kós concluent l'article.

### Introduction

The Greek island of Kós is situated in the Aegean Sea, facing the Turkish coast, more precisely the province of Muğla, and lying approximately half way between the islands of Sámos to the north and Ródos to the south. It has an area of about 286 km<sup>2</sup>.

The western half of the island is flat, being mainly constituted of cultivated land and dry garrigue. The north-eastern part is very fertile and green. The central part is probably the most interesting, with wooded areas (mainly pine woods), especially around and on the flanks of Mt. Dikeos (850 m), the highest peak of the island. The main town, Kós Town, lies on the coast at the north-eastern corner of the island.

### History of the lepidopterological research

Our knowledge of the butterfly fauna of Kós is rather limited. A publication (TURATI, 1929) is based on some collecting done by the Italian professor Alessandro GHIGI on the islands of the «Dodekannesos» in August 1926 and



Map of the southern Aegean islands, showing the geographical position of the island of Kós.

includes 13 different butterfly records from the island of Kós (under Italian occupation at that time). The next paper (REBEL, 1936) contains 18 records from Kós, 12 of which are new for the island. Here the collecting was done by Dr. Otto WETTSTEIN-WESTERSHEIM around the town of Kardámena and on Mt. Díkeos, from 6 to 8-VI-1935.

In later publications (HARTIG, 1940; BERNARDI, 1961, 1971; BRETHERTON, 1966; KOUTSAFTIKIS, 1973) one can find a series of records from Kós, but these are all based on the papers by TURATI and by REBEL. Only HARTIG adds one species not listed before : *Hipparchia senthes* (FRUHSTORFER, 1908) (recorded as «*Satyrus semele* L. *cretica* Rbl.»).

A very recent publication (THOMSON, 1985) adds 4 new species to the list. Mr George THOMSON visited the island on a one-day-trip on 30-V-1983, collecting 19 different species in the vicinity of Kós Town.

Forementioned records thus cover a period from 30-V to the month of August.

#### Personal observations

In order to investigate the spring butterfly fauna of Kós I undertook a trip to the island on 10 and 11-IV-1986. Although I only had time to collect butter-

flies for a couple of hours in the late afternoon of 10-IV and one full day on 11-IV, the weather was splendid and I could observe 19 species, of which 8 are new for the island.

Collecting took place at the following localities, all situated in the central-eastern part of the island :

- A. 1 km W. of Ágios Dimítrios (300 m), 10 & 11-IV-1986. Ruines of an abandoned village; olive grows and wasteland; dry garrigue. *Aristolochia* was present in the two first mentioned biotopes. On 11-IV special attention was paid to the dry garrigue area.
- B. 7 km W. of Kós Town (lowland), 11-IV-1986. Olive grows. Dry soil with many flowers, mainly Compositae. *Aristolochia* present.
- C. 2 km N. of Asfendiou (100 m), 11-IV-1986. Wasteland, dry meadows, roadsides with shrubs and trees.

In the following list my own records are given (A, B and C refer to the localities mentioned above). For species already listed by previous authors bibliographical references are given.

#### Papilionidae

*Zerynthia cerisyi* (GODART, 1822) : very few specimens at A and C, abundant at B. Most of the males were already worn to very worn, which seems to imply that the flight period of this species on the island of Kós starts at about the middle of March. The postdiscal row of marks and the mark on the costa in S7 of the hindwings are always red when present. Two out of the six females collected are ochreous.

*Papilio machaon* LINNAEUS, 1758 : (TURATI, 1929; REBEL, 1936; THOMSON, 1985). I took one fresh male at B.

*Iphiclides podalirius* (LINNAEUS, 1758) : B and C. One specimen observed in Kós Town on 10-IV.

#### Pieridae

*Colias crocea* (FOURCROY, 1785) : (THOMSON, 1985). I observed one single female at B.

*Pieris brassicae* (LINNAEUS, 1758) : (TURATI, 1929; THOMSON, 1985). I took the species at A and C.

*Pieris rapae* (LINNAEUS, 1758) : (REBEL, 1936; THOMSON, 1985). I found it at B.

*Euchloe simplonia* (FREYER, 1829) : I found the species quite commonly at A and C. All specimens observed belonged to the first brood.

#### Lycaenidae

*Callophrys rubi* (LINNAEUS, 1758) : one specimen found on a roadside at C, two more taken in dry garrigue flying around bushes of *Quercus ilex* at A. The specimens were very fresh.

*Lycaena phlaeas* (LINNAEUS, 1761) : (REBEL, 1936; THOMSON, 1985). A single female observed at A.

*Celastrina argiolus* (LINNAEUS, 1758) : A and C. Observed flying around buckthorn (*Prunus spinosa* L.).

*Glaucopsyche alexis* (PODA, 1761) : found only at A on dry garrigue and on an open spot with many *Asphodelia*. The specimens were all fresh.

*Aricia agestis* (DENIS & SCHIFFERMUELLER, 1775) : one single fresh female at A on 10-IV.

*Polyommatus icarus* (ROTTEMBERG, 1775) : (TURATI, 1929; REBEL, 1936; THOMSON, 1985). One single very fresh male at A.

#### Nymphalidae

*Vanessa atalanta* (LINNAEUS, 1758) : (TURATI, 1929). Observed at C.

*Cynthia cardui* (LINNAEUS, 1758) : (TURATI, 1929; REBEL, 1936; THOMSON, 1985). Observed at A.

*Polygonia egea* (CRAMER, 1775) : (TURATI, 1929; THOMSON, 1985). One male was observed at A on 10-IV and again on 11-IV.

*Pararge aegeria* (LINNAEUS, 1758) : one single male was taken at C, fluttering discretely under a scrub, near a small footpath. The specimen is of the southern form, the colour of its marks being orange. The butterfly is very damaged, lacking almost the entire right hindwing except the basal part.

*Lasiommata megera* (LINNAEUS, 1767) : (REBEL, 1936; THOMSON, 1985). Two males and one female were taken on 10-IV at A between the ruins of the abandoned village.

*Lasiommata maera* (LINNAEUS, 1758) : (REBEL, 1936). Two males and one female taken at A on 11-IV along a steep rocky slope in an area of dry garrigue near a small pine wood. Two specimens are very fresh, one is very worn.

#### Discussion

Taking into account the very restricted lapse of time that I could spend on Kós, the results may be considered successful. Nevertheless, some species that might be expected to occur here were not seen. *Archon apollinus* (HERBST, 1798) was not encountered, this being probably due to the late date (consider that even *Z. cerisyi* was getting over!) as the species is known from all the Turkish provinces bordering the Aegean Sea as well as from the Greek islands of Lésvos (GRAVES, 1918; COUTSIS, 1972; VAN DER POORTEN, 1984), Híos (pers. obs.) and Sámos (DE FREINA, 1985 and pers. obs.). There are also reports from Ródos (REBEL, 1916 : caterpillars; PIERRON, 1978 : adult specimens). If present on Kós, the species must fly as early as in February-March, being already over in April.

Investigations at a later period of the year should add more taxa to the known list. Widespread species like *Aporia crataegi* (LINNAEUS, 1758), *Hipparchia syriaca* (STAUDINGER, 1871) and others are very likely to belong also to the fauna of the island.

*Anthocharis cardamines* (LINNAEUS, 1758), a common and conspicuous butterfly, occurs on the Greek islands of Lésvos (VAN DER POORTEN, pers.

comm.), Híos (pers. obs.) and Sámos (ASSELBERGS, 1978 and pers. obs.), but is apparently absent from Kós and Ródos, as well as from the adjacent Turkish provinces of Aydın, Muğla, Denizli and Burdur, as far as known (VAN OORSCHOT, pers. comm.).

*Pontia daplidice* (LINNAEUS, 1758), although recorded from Kós, was not seen at the time of my visit.

*Coenonympha pamphilus* (LINNAEUS, 1758) seems strangely enough to be absent from Kós. The only island along the western coast of Turkey from where it is known with certainty is Lésvos.

### Check list

The following list mentions the 38 butterfly species actually known from Kós. The taxa that are mentioned for the first time here are indicated by an asterisk (\*).

### Hesperiidae

*Thymelicus acteon* (ROTTEMBERG, 1775)

*Carcharodus alceae* (ESPER, 1780)

### Papilionidae

\* *Zerynthia cerisyi* (GODART, 1822)  
*Papilio machaon* LINNAEUS, 1758

\* *Iphiclydes podalirius* (LINNAEUS, 1758)

### Pieridae

*Colias crocea* (FOURCROY, 1785)

*Pontia daplidice* (LINNAEUS, 1758)

*Pieris brassicae* (LINNAEUS, 1758)

\* *Euchloe simplonia* (FREYER, 1829) (1)

*Pieris rapae* (LINNAEUS, 1758)

### Lycaenidae

\* *Callophrys rubi* (LINNAEUS, 1758)  
*Satyrium ilicis* (ESPER, 1779)  
*Lycaena phlaeas* (LINNAEUS, 1761)  
*Thersamonia thersamon* (ESPER, 1784)  
*Syntarucus pirithous* (LINNAEUS, 1767)  
*Lampides boeticus* (LINNAEUS, 1767)  
*Cupido minimus* (FUESSLY, 1775)

\* *Celastrina argiolus* (LINNAEUS, 1758)  
\* *Glaucopsyche alexis* (PODA, 1761)  
*Plebejus loewii* (ZELLER, 1847)  
\* *Aricia agestis* (DENIS & SCHIFF., 1775)  
*Polyommatus thersites* (CANTENER, 1834)  
*Polyommatus icarus* (ROTTEMBERG, 1775)

### Nymphalidae

*Danaus chrysippus* (LINNAEUS, 1758)  
*Limnitis reducta* STAUDINGER, 1901  
*Vanessa atalanta* (LINNAEUS, 1758)  
*Cynthia cardui* (LINNAEUS, 1758)  
*Polygona egea* (CRAMER, 1775)  
*Melitaea trivia* (DENIS & SCHIFF., 1775)  
*Hipparchia senthes* (FRUHSTORFER, 1908)(2)  
*Hipparchia fatua* (FREYER, 1845)

*Pseudochazara anthelea* (HUEBNER, [1824])  
*Maniola telmessia* (ZELLER, 1847)  
*Hyponphele lupina* (COSTA, 1836)  
\* *Pararge aegeria* (LINNAEUS, 1758)  
*Lasiommata megera* (LINNAEUS, 1767)  
*Lasiommata maera* (LINNAEUS, 1758)  
*Kirinia roxelana* (CRAMER, 1777)

(1) Mostly designated under the name «*Euchloe ausonia*» in the current literature. I follow the nomenclature used in HIGGINS & RILEY, 1984.

(2) For the use of this name at specific level I follow KUDRNA, 1984.



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